- 3 -

Hesketh et al. Appl. No. 09/518,190

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

Claims 1-8 (cancelled)

- 9. (currently amended) A nucleic acid molecule encoding a mammalian signal peptide operatively linked to a nucleic acid encoding a protein that would normally not be secreted from a mammalian cell, said signal peptide allowing at least some of said protein to be synthesized on the endoplasmic reticulum in a manner so that said protein can be secreted, the nucleic acid molecule comprising a deletion, an insertion, or substitution in with respect of to all or part of a 3' untranslated region, relative to the corresponding region present in naturally occurring RNA encoding said protein, such that the region's effect in directing molecules to an intracellular location other than the endoplasmic reticulum or to free and/or cytoskeletal bound polysomes is eliminated or reduced relative to the corresponding naturally occurring sequence.
- 10. (previously presented) The nucleic acid molecule of claim 9, which is DNA.
 - 11. (previously presented) The nucleic acid molecule of claim 9, which is RNA.
- 12. (currently amended) The nucleic acid molecule of claim 9, wherein said signal peptide is a signal peptide normally from a protein which is secreted from mammalian cells.

Hesketh et al. Appl. No. 09/518,190

- 13. (currently amended) The nucleic acid molecule of claim 12, wherein said protein which is secreted is from mammalian cells is a growth hormone, a milk protein or albumin.
 - 14. (previously presented) A vector comprising the nucleic acid molecule of claim 9.
- 15. (previously presented) A mammalian cell comprising the nucleic acid molecule of claim 9.
- 16. (currently amended) A method of obtaining a protein from a <u>cultured</u> mammalian cell <u>which has been transfected</u> with <u>the nucleic acid of claim 9</u>, comprising expressing the protein in the cell using the nucleic acid of claim 9, allowing the cell to secrete the protein and purifying the protein.
- 17. (cancelled) A nucleic acid molecule capable of hybridizing to a nucleic acid molecule as described in claim 9.
 - 18. (cancelled) A vector comprising the nucleic acid molecule of claim 17.
- 19. (cancelled) A mammalian cell comprising the nucleic acid molecule of claim 17, wherein said cell is in a cell culture or in a non-human animal.

Hesketh et al. Appl. No. 09/518,190

- 20. (cancelled) A method of obtaining a protein from a mammalian cell, comprising expressing the protein in the cell using a nucleic acid of claim 17 and allowing the cell to secrete the protein.
- 21. (cancelled) A chimeric protein comprising a mammalian signal peptide linked to a protein that would normally not be secreted from a mammalian cell, wherein said protein is produced by expressing the nucleic acid molecule of claim 9.
- 22. (cancelled) A chimeric protein comprising a mammalian signal peptide linked to a protein that would normally not be secreted from a mammalian cell, wherein said protein is produced by expressing the nucleic acid molecule of claim 17

Claim 23. (currently amended) A nucleic acid molecule encoding a mammalian signal peptide operatively linked to a nucleic acid encoding a protein that would normally not be secreted from a mammalian cell, said signal peptide allowing at least some of said protein to be synthesized on the endoplasmic reticulum in a manner so that said protein can be secreted, wherein said nucleic acid molecule comprises a an entire 3' untranslated region from a nucleic acid encoding a secreted protein substituted for the entire native 3' untranslated region of said protein normally not secreted, such that said substituted region's effect in directing molecules to an intracellular location other than the endoplasmic reticulum or to free and/or cytoskeletal bound polysomes is eliminated or reduced relative to that obtained with the native 3' untranslated region.

- 6 **-**

Hesketh et al. Appl. No. 09/518,190

Claim 24. (previously presented) A vector comprising a signal sequence operatively linked to a nucleotide sequence coding for a mammalian protein operatively linked to a 3' UTR, wherein said signal sequence and said 3' UTR are from an mRNA for a secreted protein which is different to the mammalian protein coded for by said nucleotide sequence.

Claim 25. (previously presented) The vector of claim 24, wherein the signal sequence and the 3' UTR are from the same protein.

Claim 26. (previously presented) The vector of claim 24 or 25, wherein the mammalian protein coded for by said nucleotide sequence is not normally secreted.

Claim 27. (new) A nucleic acid molecule encoding a mammalian signal peptide operatively linked to a nucleic acid encoding a protein that would normally not be secreted from a mammalian cell, said signal peptide allowing at least some of said protein to be synthesized on the endoplasmic reticulum in a manner so that said protein can be secreted, the nucleic acid molecule comprising a deletion with respect to part of a 3' untranslated region from a nucleic acid encoding a secreted protein substituted for the corresponding 3' untranslated region present in naturally occurring RNA encoding said protein, such that the region's effect in directing molecules to an intracellular location other than the endoplasmic reticulum or to free and/or cytoskeletal bound polysomes is eliminated or reduced relative to the corresponding naturally occurring sequence.

Claim 28. (new) The nucleic acid molecule of claim 27 which is DNA.

Hesketh et al. Appl. No. 09/518,190

Claim 29. (new) The nucleic acid molecule of claim 27 which is RNA.

Claim 30. (new) The nucleic acid molecule of claim 27, wherein said signal peptide is a signal peptide normally from a protein which is secreted from mammalian cells.

Claim 31. (new) The nucleic acid molecule of claim 30 wherein said protein which is secreted from mammalian cells is a growth hormone, a milk protein or albumin.

Claim 32. (new) A vector comprising the nucleic acid molecule of claim 27.

Claim 33. (new) An isolated mammalian cell comprising the nucleic acid molecule of claim 27, wherein said cell is in a cell culture.

Claim 34. (new) A method of obtaining a protein from a mammalian cell, comprising expressing the protein in the cell using the nucleic acid of claim 27, allowing the cell to secrete the protein and purifying the protein.